

**UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK**

IN RE: NORTH SEA BRENT CRUDE OIL
FUTURES LITIGATION

1:13-md-02475-ALC

This document applies to:

Case Nos. 13-cv-03473-ALC, 13-cv-03587-ALC, 13-cv-03944-ALC, 13-cv-04142-ALC, 13-cv-04553-ALC, 13-cv-04872-ALC, 13-cv-04938-ALC, 13-cv-05577-ALC, 13-cv-07089-ALC, 13-cv-08030-ALC, 13-cv-08151-ALC, 13-cv-08179-ALC, 13-cv-08240-ALC and 13-cv-08270-ALC.

DECLARATION OF SAM GAER

I, Sam Gaer, state and declare the following:

BACKGROUND AND SUMMARY OF CONCLUSIONS

1. I have over 30 years of experience in the financial services and information technology sectors and have held numerous business executive positions including Chief Information Officer and Executive Vice President of the Financial Industry Regulatory Authority (“FINRA”) and Chief Information Officer and Executive Vice President of the New York Mercantile Exchange, Inc. (“NYMEX”), as well as CEO of NYMEX Europe Limited (“NYMEX Europe”). My qualifications are more fully detailed in the paragraphs below.

2. I have knowledge of and am familiar with the technical aspects of trading on Intercontinental Exchange, Inc. (“ICE”), and its affiliated subsidiary ICE Futures Europe and specifically the location where trading of futures contracts and options are executed on ICE Futures Europe. This knowledge and familiarity was gained during my tenure as CIO of NYMEX.

3. I have personal knowledge of and am familiar with the technical aspects of trading on the New York Mercantile Exchange, Inc. (“NYMEX”) and specifically the location where trading of futures contracts and options are executed on NYMEX and its former affiliate, NYMEX Europe Limited (“NYMEX Europe”).

4. ICE is the owner and operator of the integrated electronic platform known as the “ICE Platform” on which ICE Futures Europe’s contracts are traded. The ICE Platform also is used by ICE Futures U.S., which like ICE Futures Europe is a wholly-owned subsidiary of ICE. Bids and offers of ICE Futures Europe products, including ICE Brent Futures contracts and related options contracts, are matched on the ICE Platform by servers physically located in the United States in Chicago, Illinois. That is, ICE Futures Europe has a single “central limit order book” and “trade matching engine” the entire installation of which is housed in a server farm in a central location. If this installation in Chicago fails, ICE maintains a back-up system in Atlanta, Georgia, where ICE maintains its corporate headquarters.

5. NYMEX is owned by the Chicago Mercantile Exchange (“CME”). CME is the owner and operator of the electronic trading system known as GLOBEX. GLOBEX is the central limit order book and central matching engine for NYMEX on which its futures contracts, including the NYMEX Brent futures and options contracts, are traded. The GLOBEX server farm is housed and operated in Aurora, Illinois by the CME.

6. The “trade matching engine” is the electronic trading world’s equivalent to the open outcry floor pits, which historically were the exclusive means for buying and selling commodity futures contracts. The location of the trade matching engine is in only one place. In its initial incarnation, ICE Futures Europe located their trade matching engine in Atlanta, Georgia from 2000 to January 2008. Subsequently in January 2008 for critical strategic business

reasons (and in response to customer demand) ICE Futures Europe relocated the trade matching engine to Chicago, Illinois, close to many high frequency traders and to other exchanges, most notably the Chicago Mercantile Exchange, owner of NYMEX. In today's global trading markets, proximity is a critical component for maintaining high volume customers. Chicago, Illinois offers the requisite proximity to these customers for ICE Futures Europe.

7. The practical consequence of ICE Futures Europe's presence in Chicago is that, at least with respect to traders in the United States, all the steps necessary to entering into a Brent futures contract take place in the United States. A trader's bid or offer made in the United States for an ICE Brent Futures contract is always made through a futures commission merchant ("FCM"). That bid or offer will travel electronically within the United States to Chicago to be matched through a clearing member with the clearing house in Chicago, Illinois. According to ICE rules, the contracts are "formed" at the time of matching.

8. Any ICE Brent futures bids or offers that originate outside of the United States, including in Geneva, Norway or London, will be directed electronically to Chicago, Illinois, to be matched. That is, all bids and offers, regardless of where they originate, will be matched, and the contracts formed according ICE's rules, in Chicago, Illinois. The only difference between traders placing orders in the United States, and those outside of the United States, is the location from which the orders' originate. Otherwise, the contract matching and formation is identical.

9. There is no trade matching for ICE Futures Europe's Brent crude oil products that occurs on a trade matching engine outside of the United States. *See* Tech Talk, ICE Heads North, "ICE's primary trade matching engine, which operates on an IBM P6 computer, supports ICE's global electronic markets, which include: ICE Futures Europe, which is home to its Brent and WTI crude oil contracts; ICE Futures U.S., ICE's primary trade matching engine, which

operates on an IBM P6 computer, supports ICE's global electronic markets, which include: ICE Futures Europe, which is home to its Brent and WTI crude oil contracts; ICE Futures U.S.”¹

QUALIFICATIONS

10. I am currently CEO and largest shareholder of Redify Group, Inc., a New York-based technology firm (OTCBB:RDFY) specializing in mobile applications, online lead generation, and payment system technology.

11. I am also the founder and a principal at LWT LLC, an algorithmic trading firm located in New York City.

12. Previously, I was CEO at Liquid Holdings Group, LLC (“Liquid”), a New York-based provider of hedge fund technology.

13. Prior to my work at Liquid, from 2010-2012, I served as the Chief Information Officer and Executive Vice President of FINRA.

14. From 2003-2008, I served as the Chief Information Officer (“CIO”) and Executive Vice President of NYMEX (2006-2008), as well as CEO of NYMEX Europe (2005-2007), where I helped plan and design NYMEX Europe's global technology strategy, its initial public offering (“IPO”), and eventual acquisition by the Chicago Mercantile Exchange. As the CIO of NYMEX and CEO of NYMEX Europe, I was knowledgeable and familiar with ICE Futures Europe's global technology and ICE's infrastructure in general, which I analyzed when I was designing NYMEX Europe's global technology strategy. Moreover, in competing with ICE for six years, whether with customers or competitors, I had frequent discussions about ICE's technology and architecture.

¹ See http://www.futuresindustry.org/downloads/Mar-Apr_Tech_Talk.pdf; see also <http://www.prnewswire.com/news-releases/ice-announces-exchange-migration-to-new-chicago-data-center-january-test-dates-announced-59887327.html>.

15. Also while at NYMEX, I spent a significant amount of time developing the NYMEX Brent crude oil futures contract. I am therefore quite familiar with those crude oil contracts.

16. I am also the founder and former Chairman of TradinGear.com, a trading software development company whose assets were purchased by the New York Mercantile Exchange in 2003.

17. In December 2004, I also was elected to the Co-Chair position of the Global Derivatives Committee for FIX Protocol Limited, an organization that owns the intellectual property rights of the Financial Information eXchange protocol ("FIX"), which is a globally recognized messaging standard enabling the electronic communication of pre-trade and trade messages between financial institutions.

18. I currently serve on the board of Aramada Water Assets, Inc., a privately held company located in Colorado.

19. I have twice been selected as a CIO 100 Award Winner by CIO Magazine (2005, 2007), and also honored by the periodical "Risk Waters" for CIO Best IT Team (2008).

20. I served on the Commodities Futures Trading Commission ("CFTC") Technology Advisory Committee from approximately 2004 to 2007.

21. In 2011, I also was selected by the CFTC and served as a member of its Subcommittee on Data Standardization, which is a subcommittee of the CFTC's Technology Advisory Committee.

22. I graduated from the Wharton School of Business at the University of Pennsylvania.

23. I am being compensated at my daily rate of \$3,500.

**ICE FUTURES EUROPE DATA CENTERS ARE
LOCATED IN THE UNITED STATES**

24. ICE is the ultimate owner of ICE Futures Europe and ICE Clear Europe, its clearing house.

25. The International Petroleum Exchange (“IPE”) is ICE Futures Europe’s predecessor. IPE listed a variety of derivatives contracts related to Brent Crude oil. Currently, ICE Futures Europe lists a variety of derivatives contracts related to Brent Crude oil.

26. IPE was an open outcry exchange located in London. IPE also operated an electronic trade and order matching system known as Electronic Trading System II (“ETS”). In November 1999, the CFTC granted IPE’s request to make ETS available to IPE members in the United States. The CFTC also allowed IPE members’ United States customers to trade on ETS via IPE members.

27. ICE commenced operation in or around August 2000. Since its inception, ICE has operated an electronic trading and order matching system known as the ICE Platform. The ICE Platform modernized the trading of energy futures and OTC derivatives contracts to make trading entirely electronic.

28. In 2001, ICE acquired IPE.

29. Between July 2002 and April 2003, ICE transitioned the electronic trading of IPE’s futures and other derivative contracts from IPE’s ETS to the ICE Platform.

30. ICE traditionally did not operate an open outcry, pit system of trading, and in April 2005, ICE fully converted IPE transactions to the ICE Platform, open outcry trading ceased, and IPE became ICE Futures Europe.

31. The ICE Platform has a physical data center (the “ICE Data Center”) which contain servers that match orders (“matching servers”). Between 2000 and 2008, the ICE Data Center and ICE Platform matching servers were located in Atlanta, Georgia. From 2008 to the present, the primary ICE Data Center and thus primary ICE Platform matching servers have been located in Chicago, Illinois. Back-up matching servers have been located in Atlanta, Georgia. Specifically, the matching servers are located at 350 E. Cermak Road in Chicago. *See* Equinix Whitepaper “Chicago’s Financial Hub” (showing diagram of Cermak center with ICE matching server located in the building), http://carlarweir.files.wordpress.com/2013/03/equinix-chicago_metro_report_6-26-2012.pdf.

32. This building at 350 East Cermak originally housed printing presses for the Yellow Book and Sears Catalog for R.R. Donnelley Co. 350 East Cermak was converted to telecom use in 1999. The 1.1 million square foot facility is one of the world’s largest carrier hotels and the nerve center for Chicago’s commodity markets; the facility houses data centers for financial firms attracted by the wealth of peering and connectivity providers among the 70 tenants. *See* Data Center Knowledge “Special Report: The World’s Largest Data Centers” (<http://www.datacenterknowledge.com/special-report-the-worlds-largest-data-centers/worlds-largest-data-center-350-e-cermak/>).

33. The building has a massive technology infrastructure which includes four fiber vaults and three electric power feeds. 350 East Cermak is reportedly the second-largest power customer in Chicago, following only Chicago’s O’Hare Airport. Grid power is supported by more than 50 generators throughout the building, which are fueled by multiple 30,000 gallon tanks of diesel fuel. *See id.*

34. From a business perspective, the location of ICE's matching server in Chicago is a critical component of the ICE Platform. By being located at 350 East Cermak, ICE is able to offer its highest volume traders proximity to other exchanges, most notably the Chicago Mercantile Exchange, which currently houses its matching servers in Aurora, Illinois, but previously was also located at 350 East Cermak. *See* CME's Colo Service to Go Live on Jan. 29 (<http://www.wallstreetandtech.com/latency/cmcs-colo-service-to-go-live-on-jan-29/d/d-id/1265337?>); *see also* Data Center Knowledge, "CME Group Opens Chicago Trading Hub" (<http://www.datacenterknowledge.com/archives/2010/08/23/cme-group-opens-chicago-trading-hub/>).

35. Proximity allows for faster trading, which is of particular importance for high frequency algorithmic traders, for whom just microseconds can be the difference between making a profit, or sustaining a loss, on a given trade. It is these traders which make up a large percentage of trading volume, including ICE's trading volume,² and therefore proximity to these traders and valuable customers is extremely important.

36. I know from my own experience that the "latency," which refers to the lapse of time between when a trade is sent and received, of trades moving from Aurora, Illinois to 350 E. Cermak in Chicago is about 1-2 milliseconds. From New York to Chicago, the latency is about 8 milliseconds. From London to Chicago, that latency would be about 50-70 milliseconds. These are typical latency times. 50-70 milliseconds is a significant amount of time in the high-frequency trading world and such a "delay" could cause substantial differences in trading patterns and profit and loss profiles for these traders. I know this from my trading, and information technology services, and business experience.

² *See, e.g.*, <http://www.zerohedge.com/news/2012-10-02/why-high-frequency-trading-will-never-go-away>.

37. ICE's matching servers are the modern day equivalent to the pits where open outcry trading of commodity futures used to occur. It is these matching servers which connect the bids and offers and derive the transacted price. There is no other analogous location for contract formation. Previously, for example on NYMEX, when there was open-outcry pit trading, the futures contracts were formed in the pits, when floor brokers or traders agreed on a price and wrote the transaction down on their tickets. Functionally, the matching servers act in a similar way to the pit – it is the locus for the connection between purchases and sales of the futures contracts and other derivatives.

38. ICE Clear Europe's rules confirm this point. Rule 401, titled "Formation of Contracts" states:

(a) Subject to Rule 403 and Rule 404, **two Contracts shall arise automatically**, one between the Selling Counterparty and the Clearing House and the other between the Clearing House and the Buying Counterparty (or a single Contract shall arise between the Clearing House and a Buying Counterparty or Selling Counterparty where applicable in the case of Rule 401(a)(vi)), **at the moment that:**

(i) in the case of any ICE Endex Matched Transaction, ICE Futures Europe Matched Transaction, ICE Futures US Matched Transaction or Financials & Softs Matched Transaction, **the relevant orders are matched** on ICE Endex, ICE Futures Europe, ICE Futures US or LIFFE, as applicable

(emphasis added).³

39. The Buying and Selling Counterparties mentioned in Rule 401 are the ICE Clearing Members.

40. Importantly, as discussed below, once a trade is matched, the trade is final.

³ See https://www.theice.com/publicdocs/clear_europe/rulebooks/rules/Clearing_Rules_7_October_2014.pdf.

ICE FUTURES EUROPE - MECHANICS OF TRADES BY CUSTOMERS

41. Since 2003, all matching for electronic trades on ICE Futures Europe has occurred on the ICE Platform and since 2005 all trades on ICE Futures Europe have been electronic. In January 2008, ICE relocated the trade matching engine, which hosts its trading operations for futures and other products, from its primary ICE Data Center in Atlanta, Georgia to Chicago, Illinois.

42. ICE Futures Europe trades are executed on the ICE Platform.

43. Upon receipt of order information in the front-end software, the order information is routed to the ICE Platform matching servers in Chicago, Illinois (with the backup in Atlanta, Georgia). The ICE Platform uses a price/time matching algorithm for all trades on ICE Futures Europe and ICE Futures U.S. The algorithm is a first-in, first-out system that matches orders in strict time sequence with the lowest offer meeting the highest bid. *See, e.g.*, Trading Procedures, ICE Futures Europe, Section 3.8 – 3.8.3 “Order Execution and Recording of Trades”, *available at* https://www.theice.com/publicdocs/contractregs/108_XX_TRADING_PROCEDURES.pdf (“Every trade made on the ICE Platform shall be executed in accordance with and in a form permitted by these Regulations, Trading Procedures and set out in the ICE Platform User Guide All orders entered and activated are queued by time of entry or amendment and matched on a first-in-first out price and time priority basis . . . should orders entered by [Members] match and a trade result, that Member shall be deemed to have transacted a cross trade.”).

44. The ICE Platform matching servers match trades based on the algorithm and at this point the trade is complete. *See id.* Section 3.9.2 “Cancellation of Trades” (“Once a bid or offer has been matched in whole or in part and gives rise to a trade there is no right of

withdrawal”).

45. The ICE Platform may be accessed in various ways including direct access interfaces (“DAI”) developed by FCMs, independent software vendor programs (“ISV”), or ICE’s proprietary WebICE system (“front-end software”). Regardless of the access point at which a trader connects to the ICE network, all connections are routed to the active ICE Data Center located in Chicago, Illinois or Atlanta, Georgia. *See* <https://www.theice.com/connectivity/resources>.

46. It is my understanding that the CFTC requires a trader located in the United States to access the ICE Platform through a Futures Commission Merchant (“FCM”) located in the U.S. Such traders trade under the auspices of the FCM and receive a trading confirmation from the FCM. No part of this electronic transaction, or the points in between, takes place outside of the United States.

47. For example, I have been informed that the named Plaintiffs in this case trade through various United States FCMs, including: FC Stone LLC in Chicago, Illinois; NewEdge USA LLC in Chicago, Illinois; Interactive Brokers LLC in Greenwich, Connecticut; Advantage Futures, LLC in Chicago, Illinois; and Rosenthal Collins Group LLC in Chicago, Illinois. All of these FCMs are Clearing Members of ICE Futures Europe.

48. This is not surprising as many of ICE Clear Europe’s Clearing Members are in the United States. *See* <https://www.theice.com/clear-europe/membership>.

49. For traders located outside of the U.S. and transacting on ICE Futures Europe, their bids and offers travel electronically to, and are matched by, the matching servers at 350 East Cermak in Chicago, Illinois. Because a trade occurs at the “moment” of matching (as ICE Clear Europe explicitly states), traders inside and outside of the U.S., regardless of where the

bids and offers originate, will have their contracts formed in Chicago. Prior to the migration of ICE's primary trade matching engine to Chicago in January 2008, traders inside and outside of the U.S. had their contracts matched in Atlanta, Georgia, which is where the ICE Data Center was located. The ICE Data Center in Atlanta now serves as a disaster recovery back up system for the ICE Data Center in Chicago.

50. Thus, when it comes to matching, the only difference between traders located outside of the United States and those within the United States is the origin of the bid or offer. That bid or offer, however, will always travel to, and be matched by, the matching server in Chicago, Illinois. Even some traders outside of the United States will use "co-located servers" in the United States in order to speed the time of trading. Co-located servers allow for a trade to originate from the location of the server. They are usually co-located in the same data center (350 E. Cermak) as the ICE matching engine. For most of these non-United States traders, who are generally traders using algorithmic programs located at the co-located server, they will effectively be sending their trades from Chicago to Chicago. *See* <https://www.theice.com/connectivity> ("ICE CoLo" is a "Host equipment and order managed service provider cross-connections to directly connect to the ICE trading system: Available exclusively at ICE Primary and Disaster Recovery (DR) facilities. . . .").

51. Therefore, based on the mechanics of how the trades are matched and ICE's rules regarding "Formation of Contracts," the obligations of the buyers and sellers are incurred at the moment of trade matching by the matching servers in Chicago, and prior to January 2008 in Atlanta. This is logical as, in my experience, once the trade is matched, it is confirmed.

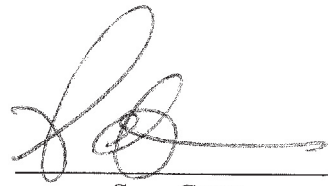
NYMEX DATA CENTERS ARE LOCATED IN THE UNITED STATES

52. In 2005, NYMEX Europe Limited (“NYMEX Europe”), a wholly owned subsidiary of NYMEX, launched an electronic trading operation for Brent futures contracts and options. Currently and since 2007, Brent futures and other crude oil projects are traded on CME GLOBEX under NYMEX’s regulatory auspices. The electronic trading systems supporting these electronic trading operations, which are hosted by servers located in the United States (currently in Aurora, Illinois), are operated and maintained by CME.

53. At the point of matching of a trade within the electronic trading platform, a contract is formed between corresponding buy and sell counterparts. Trades are formed at the point of matching in in CME GLOBEX’s matching system. Matching for electronic energy trades on NYMEX, NYMEX Europe and GLOBEX has always occurred on a matching system in the U.S. None of the matching steps takes place outside of the U.S.

I declare under the penalty of perjury under the laws of the United States of America that the foregoing is true and correct to the best of my knowledge.

Executed on October 27, 2014
New York, New York.



Sam Gaer
SAMUEL H. GAER